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[54] TRACK PAD CURSOR POSITIONING DEVICE AND METHOD

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[58] **Field of Search** 345/156, 158, 166, 163, 345/157, 165, 158, 175, 173; 178/18, 19; 382/59, 65; 341/22

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[57] **ABSTRACT**

The track pad cursor positioning device and method simulate the movement of a track-ball cursor controller by generating directional light curtains which facilitate optical sensing of the velocity and direction of movement of a pointer across a tracking area to generate a cursor control signal as a function thereof to control cursor movement. If a pointer is sensed but there is no pointer movement relative to the tracking surface, no control signal to move a cursor is generated, but if the presence of a pointer is not sensed after a cursor control signal has been generated, then a cursor control signal is provided which results in continued movement but deceleration of the cursor. The track pad cursor positioning device provides a miniature package which may be incorporated as part of a personal computer keyboard.

25 Claims, 5 Drawing Sheets